

Was Roman fish sauce rotten?

Sally Grainger

A recent light-hearted article in *Omnibus* suggested that *garum* was a sauce of rotten fish used to disguise the taste of rotten meat. The author may have been exaggerating a little for the shock effect but it is nonetheless an all too common belief among classicists and archaeologists, and it is entirely wrong. People do not eat any kind of food that has become rotten, and disguising the taste of such things with other rotten foods is the height of insanity. Such behaviour spells a long and lingering death, and always has done. The well-documented fact that *garum* could be expensive and exclusive to the luxury market doesn't quite square with the natural assumption that the so-called rotten meat would be eaten by the less well-off member of Roman society. No one with wealth would eat rotten meat through choice, and, if you could afford fresh meat, why would you need to use the fish sauce? I want here to provide a few basic facts about these sauces, so that the culinary myth of rotten fish sauce is banished for ever.

The Romans cooked with numerous different kinds of fish sauce (*garum* is only one of them) and each one had a different role and market within the community. There doesn't seem to be a generic term for the general idea of fish sauce, though some ancient writers and modern ones do sometimes use *garum* in a generic sense, using *garum* when they actually mean the other fish sauces such as *liquamen* and *muria* as well.

Salting away

Garum and all the other forms of fish sauce were fermented with salt rather than allowed to rot. We would not consider bread, wine, beer, and soy sauce as rotten, yet they are all made using a similar form of controlled decay called fermentation. All kinds of fish are salted as soon as they are caught so that they may be preserved for later consumption. If fish is left to heat up in the sun for longer than a few hours, it begins to smell and soon decays. It is therefore essential to halt the process of decay with salt.

We know that the fish was freshly caught when it was mixed with the salt and this immediately counters the rotten claim, as the salt levels are such that bacterial decay simply cannot happen. Instead the enzymes in the flesh combine with the salt to draw out the water naturally present in the fish and so preserve the flesh in brine. If the fish is then left for a short time in the brine, the preservation is light and the fish probably keeps for a week or two. If it is left for longer, the preservation will be correspondingly longer; and if the fish is left for months it will dissolve completely, and this is what happens when fish sauces were made.

There were three types of ancient fish sauce and they appear to have had different functions. One major cause of confusion in Roman food studies has been the assumption that *garum* and *liquamen* were pretty much the same thing, the latter supposedly being a late Imperial name for the earlier *garum*. This has now been challenged in our new book *Apicius* (see below) and we must begin to see these sauces as all effectively different within the general idea of fish sauce.

Liquamen

Liquamen is the name for a fish sauce made with whole small fish such as anchovy that are left uncut and uncleaned and

allowed to dissolve slowly and completely in the brine for up to 3–4 months. *Liquamen* can also be made from pieces of larger fish such as mackerel that have been cleaned by draining their blood and intestines. The ratio of salt to fish is roughly 1:7 which prevents bacterial growth but is not very salty. This fish sauce appears in the recipe book known as *Apicius* and is used as a means of adding salt flavour to food at the cooking stage. So we can say that the cooks used this sauce predominantly in the kitchen. This fish sauce also corresponds to the South East Asian varieties that are so common today. The only difference is that the anchovy and salt are allowed to dissolve for anything up to 18 months in modern production and the salt levels are considerably higher.

Garum

Garum is the Latin name for a special fish sauce made with salt and the blood and intestines of certain fish, mainly mackerel, and these may even have been the same fish that had been used to make the *liquamen* mentioned above. Martial actually gives a precise definition of *garum* when he says that it was 'made from the blood of a still breathing mackerel'. This is not as terrible as it sounds: fresh fish blood is no different really from fresh pigs' blood which is used to make black pudding. *Garum* was a fairly high-status product; yet it was available to, and desired by, relatively ordinary people. We know this because the customers at some of the less than exclusive *popinae* of Pompeii used it, or at least had amphoras labelled *garum*. This sauce may have been made from blood and intestines from a variety of different fish rather than just mackerel. *Garum* could be made from very select ingredients and therefore command a very high price. The gourmet Apicius (not the same person as the author of the recipe book) is said to have recommended making *garum* from mullet blood and then cooking more mullet in that same sauce. *Garum* as a blood sauce does not appear in *Apicius*. In fact we are unsure precisely how 'blood *garum*' was used in Roman food. As a high-status product it is mentioned quite a lot in poetry, while *liquamen*, used in the kitchen, is not mentioned at all. This should tell us that the products are different and that they have different uses. In literature, particularly satire, we find references to *garum* as an exclusive ingredient in sauces that the gourmet is able to discuss and describe while at table. We find particular reference to one of these sauces in Horace, *Satires* 2.8. 45–50. In Horace an exclusive mixture of old wine, oil, *garum*, and white pepper and other spices is blended. In certain circumstances I think the gourmet may even mix these sauces himself at table. Certain little tableware cups have wear marks that indicate a spoon or other tool has been used to beat some kind of mixture. These sauces can resemble vinaigrette in that it can separate and require re-beating in just such a vessel.

The poet Martial also suggests table rather than kitchen use when he makes a dish of oysters, sent as a present at the Saturnalia, announce 'I have just arrived, a shellfish drunk on the waters of the Lucrine lake at Baiae. Now I thirst for noble *garum*, extravagant as I am': the implication here is that the diner or slave in attendance simply poured a little *garum* on to the oysters before they were eaten. This table/kitchen separation may explain the fact that *garum* became so important to a gourmet while the cooking sauce *liquamen* was not discussed.

Muria

This third sauce is described by Martial as a second-grade sauce used by common people. It is the brine that forms when cleaned fish is salted for storage and preservation. It is drained off and sold as a cheap (and no doubt weaker) fish sauce for everyone else to use in their cooking.

And for today?

And now we need to look at what to do about fish sauce in 'reconstructed' recipes. Thai fish sauce works as a natural flavour enhancer just as monosodium glutamate does in Chinese food. If you like Thai food you will have eaten fish sauce already, of course. There is a cheesy/meaty quality (not fishy at all) that is very successful and desirable when blended with sweet and spicy ingredients. Those of you who reject the idea of fish sauce out of hand will, I guarantee, like dishes with it in if you aren't told it is there! The thought of it is the problem and this is down to the myth that fish sauce was rotten. The only sauce that we need in cooking is *liquamen* as very few recipes survive using blood *garum* or *muria*. I have already said that Thai fish sauce is very close to ancient *liquamen* but we need to adjust the saltiness to correspond to the ancient version. In my new selection of adapted Roman recipes *Cooking Apicius* I recommend that you boil grape juice down to half its volume, allow it to cool and then blend one-third syrup to two-thirds fish sauce. This is then ready to use as *liquamen* in the recipes to be found in *Apicius*.

Happy cooking!

Sally Grainger is a leading expert on the practical side of Roman cooking. She has recently provided the culinary expertise in a volume co-authored with Christopher Grocock, Apicius. A critical edition with an introduction and English translation, and has also presented a practical selection of recipes in Cooking Apicius (both Prospect Books, 2006).